

Application No. 10/065,217
Docket No. 17MY-7239
Amendment dated September 26, 2006
Reply to Office Action of June 26, 2006

REMARKS

In the Office Action, claims 1-32 were rejected under 35 USC §103 in view of U.S. Patent No. 4,810,467 to Wood et al. (Wood), claims 1-32 were rejected under 35 USC §103 in view of U.S. Patent No. 4,039,330 to Shaw, and claims 1-10 were provisionally rejected under the judicially-created doctrine of obviousness-type double patenting in view of claims 1-10 of U.S. Patent No. 7,014,723 to Beck et al. (Beck). In response, Applicants have amended the claims as set forth above. More particularly:

Independent claim 1 has been amended to revert to the originally claimed ranges recited for Alloy A in Table VI, with the additional limitations that the minimum Al content is at least that reported for Alloy #6 in Table I, the maximum Al content is the upper limit reported for Alloy A in Table VI, the minimum Al+Ti is the lower limit reported for Alloy A in Table VI, and the maximum Al+Ti is that reported for Alloy #5 in Table I.

Dependent claims 2 and 3 have been amended for consistency with their parent claim 1.

Dependent claim 7 has been amended to depend from claim 2 instead of claim 1, and to recite a limitation found in dependent claims 5 and 8.

Dependent claim 8 has been amended to depend from claim 3 instead of claim 1.

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Dependent claim 9 has been amended to depend from claim 8 to provide antecedence for "the nozzle."

Independent claim 10, which recites ranges for Alloys #5-#7 in Table I, has been amended to have the additional limitations that the minimum Al content is at least that reported for Alloy #6 in Table I, the maximum Al content is the upper limit reported for Alloy A in Table VI, the minimum Al+Ti is the lower limit reported for Alloy A in Table VI, and the maximum Al+Ti is that reported for Alloy #5 in Table I.

Independent claim 11 has been amended to revert to the originally claimed ranges recited for Alloy B in Table VI, with the additional limitation that the maximum Al+Ti is that reported for Alloy #1 in Table I.

Dependent claims 12 and 13 have been amended for consistency with their parent claim 11.

Dependent claim 13 has been further amended to require the minimum Al content of that reported for Alloy #2 in Table I.

Dependent claim 17 has been amended to depend from claim 12 instead of claim 11, and to recite a limitation found in dependent claims 15 and 18.

Dependent claim 19 has been amended to depend from claim 18 to provide antecedence for "the nozzle."

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Independent claim 20, which recites ranges for Alloys #1-#3 in Table I, has been amended to recite the aluminum range for Alloys #1-#3 in Table I and to recite a maximum Al+Ti of that reported for Alloy #1 in Table I.

Dependent claims 21, 22, 25, 26, and 28 have been canceled without prejudice to Applicants.

Dependent claims 23 and 24 have been amended for consistency with their parent claim 10.

Dependent claims 29 and 30 have been amended for consistency with their parent claim 20.

Dependent claim 31, which depends from claim 20, has been amended to recite the Al content reported as nominal for Alloy B in Table VI.

Because the end points of each claimed range are based on values found in Tables I or VI of the specification, Applicants believe that the above amendments do not present new matter.¹ Favorable reconsideration and allowance of remaining claims 1-20, 23, 24, 27, and 29-32 are respectfully requested in view of the above amendments and the following remarks.

¹ While the claims use actual values directly from Tables I and VI, the precision with which such values are indicated is merely intended to comply with the literal support requirement imposed in previous Office Actions, and is not intended to limit the scope of the invention as to deviations and measurement errors that those skilled in the art would understand and expect to occur when attempting to produce the alloys of this invention as now recited in the amended claims.

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§103 Rejection of Claims 1-32 based on Wood

Wood was cited for disclosing a nickel-base alloy with alloying ranges that overlap those of claims 1-32 "with the exception of the total aluminum + titanium proportion." However, Wood discloses a cobalt content of 10-25%, which does not overlap with Applicants' claimed cobalt ranges of 5 to 8% and 6.47 to 6.61% in independent claims 11 and 20 (as previously presented and also as currently pending), respectively. The Examiner has not argued, in this or any previous Office Action, that Applicants' maximum claimed cobalt content of 8% is so close to Wood's minimum disclosed cobalt content of 10% that one would have expected Wood's alloy and the alloy recited in independent claims 11 and 20 to have the same properties. Therefore, Applicants respectfully request the withdrawal of the rejection of independent claims 11 and 20 and their remaining dependent claims in view of Wood.

Wood discloses an aluminum content of 0.5-1.5%. In contrast, Applicants' amended independent claims 1 and 10 require an alloy that has an aluminum content of at least 2.21% (also recited in claims 13 and 30 as previously presented). The Examiner has not argued, in this or any previous Office Action, that Applicants' claimed minimum aluminum content of 2.21% is so close to Wood's maximum disclosed aluminum content of 1.5% that one would have expected Wood's alloy and the alloys recited in independent claims

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1 and 10 to have the same properties. Therefore, Applicants respectfully request the withdrawal of the rejection of independent claims 1 and 10 and their remaining dependent claims in view of Wood.

§103 Rejection of Claims 1-32 based on Shaw

Shaw was cited for disclosing a nickel-base alloy with alloying ranges that overlap those of claims 1-32, with the exception that Shaw's minimum Al+Ti content of 4% "closely approximates the instantly claimed upper limit of 3.89%."

Applicants' now claim maximum Al+Ti contents of 2.97% (amended independent claims 1 and 10) and 3.05% (amended independent claims 11 and 20). These same limits were and are still recited in Applicants' dependent claims 2 and 23 (2.97%) and 12 and 29 (3.05%). The Examiner has not argued, in this or any previous Office Action, that Applicants' maximum claimed Al+Ti contents of 2.97% and 3.05% are so close to Shaw's minimum disclosed Al+Ti content of 4.0% that one would have expected Shaw's alloy and the alloys recited in independent claims 1, 10, 11, and 20 to have the same properties. Therefore, Applicants respectfully request the withdrawal of the rejection of independent claims 1, 10, 11, and 20 and their remaining dependent claims in view of Shaw.

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Double Patenting Rejection

Applicants request the double patenting rejection be held in abeyance until allowable subject matter has been indicated by the Examiner. At that time, if appropriate a terminal disclaimer pursuant to 37 CFR §1.321(b) will be submitted which terminally disclaims that portion of the patent issuing from the present patent application which extends beyond the termination date of Beck.

Closing

Should the Examiner have any questions with respect to any matter now of record, Applicants' representative may be reached at (219) 462-4999.

Respectfully submitted,

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